SDDC PAMPHLET No. 55-12

TRANSPORTATION AND TRAVEL COMMERCIAL CONTAINERS FOR DEPARTMENT OF DEFENSE HOUSEHOLD GOODS SHIPMENTS

MAY 2004

THIS REPLACES THE DECEMBER 1998 EDITION AND ALL UPDATES

SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND TRANSPORTATION ENGINEERING AGENCY ATTN: SDTE-DPE 720 THIMBLE SHOALS BOULEVARD, SUITE 130 NEWPORT NEWS, VA 23606-4537

#### **FOREWARD**

This pamphlet is issued to provide information pertaining to commercially owned shipping containers used for the movement and storage of Department of Defense (DOD) sponsored personal property shipments.

This pamphlet does not apply to Government-owned shipping containers. Information regarding these containers may be found in the most recent issue of American Society for Testing and Materials (ASTM), ASTM-D-4169, *Standard Practice for Performance Testing of Shipping Containers and Systems*.

# DEPARTMENT OF THE ARMY SURFACE DEPLOYMENT AND DISTRIBUTION COMMAND TRANSPORTATION ENGINEERING AGENCY ATTN: SDTE-DPE

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May 2004

# Transportation and Travel COMMERCIAL CONTAINERS FOR DEPARTMENT OF DEFENSE HOUSEHOLD GOODS SHIPMENTS

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This pamphlet supersedes SDDC Pam 55-12, December 1998

FOR THE COMMANDER:

OFFICIAL:

RODNEY A. MALLETTE

Colonel, GS Chief of Staff

DISTRIBUTION:

Special

#### SECTION I

#### **GENERAL**

1001. <u>Purpose.</u> To provide ready information concerning the approval and use of commercially-owned containers approved by the Surface Deployment and Distribution Command (SDDC) for DOD sponsored personal property shipments. Information contained herein does not apply to Government-owned shipping containers. Information regarding these containers may be found in the most recent issue of American Society for Testing and Materials (ASTM), ASTM-D-4169, *Standard Practice for Performance Testing of Shipping Containers and Systems*.

### 1002. Scope.

- a. Section II provides criteria for use of containers; Section III provides selected references; Section IV provides container inspection procedures and SD Form 356-R, Container Inspection Report; and a list of commercially-owned Household Goods Containers approved by SDDC. (See List of Approved Commercially-Owned Household Goods Containers)
- b. Users of this pamphlet are encouraged to submit recommended changes or comments on its improvement. Comments should be keyed to the specific page and paragraph, with rationale, and forwarded to the Director, SDDCTEA, ATTN: SDTE-DPE, 720 Thimble Shoals Blvd., Suite 130, Newport News, VA 23606-4537.

# 1003. Responsibilities.

- a. SDDC, Transportation Engineering Agency:
  - (1) Approve all containers.
  - (2) Update list of approved containers.
  - (3) Monitor the container program on a worldwide basis.
- b. Carrier/container manufacturers:
  - (1) Furnish test reports from an independent testing laboratory for containers when requesting SDDC container approval. Test container in accordance with the most recent issue of ASTM-D-4169.
  - (2) Use SDDC-approved containers for all containerized shipments of personal property.
- c. Personal property shipping offices (PPSOs):
  - (1) Assure that carriers use only SDDC-approved containers. These containers must be in sound condition (no holes, not deteriorated, properly caulked).
  - (2) Prohibit the use of unapproved or unsatisfactory containers.
  - (3) Inspect containers for SDDC approval number, container markings and general condition. Inbound shipments with container deficiencies will be reported to origin PPSO.

- d. SDDC Military Ocean Terminals will monitor containers transiting the terminals and report use of unapproved or unsatisfactory containers to origin PPSO.
- e. Military Airlift Command terminals will report the use of unserviceable containers to the origin shipping office.
- 1004. <u>DOD Container Policy</u>. DOD does not restrict the carriers as to types of material, length, width or height of commercially developed containers, DOD does require; however, that all containers be constructed in such a manner as to satisfy the testing requirements of ASTM-D-4169.
- 1005. <u>Summary</u>. This pamphlet applies for the use of commercially-owned personal property containers, on a worldwide basis.

#### SECTION II

#### CRITERIA FOR USE OF CONTAINERS

2001. <u>General</u>. Carriers will use only SDDC-approved containers which are in sound condition. The PPSO may (under certain conditions) authorize use of Government-owned containers, ASTM-D-4169, with a reduced cost to the Government in accordance with appropriate tariffs/tenders or require use if a waiver authorization has been granted by SDDC. Under the waiver provision, reduced cost to the Government does not apply. When approved, the Government-owned containers must be in sound condition and free from visible defects.

## 2002. Code of Service.

- a. Approved containers must be used for the following codes or types of service:
  - (1) Code 2 Domestic, door-to-door container movement.
  - (2) Code 3 International, door-to-door container movement.
  - (3) Code 4 International, door-to-door container movement.
  - (4) Code 5 International, door-to-door container surface, Government movement.
  - (5) Code T International, door-to-door air movement.
- b. SDDC-approved containers are authorized for use on shipments moving under packing and containerization contracts when this mode of service is selected by the PPSO. When this service is ordered and commercial containers are used, the container requirements outlined in this pamphlet will apply.
- 2003. <u>Container Markings</u>. All SDDC-approved containers used for the movement of DOD-sponsored cargo will be branded with the approval number at the top right hand corner of both side panels and the nonremovable end panel with 1-1/2-inch numerals, such as "SDDC-000A." Other container markings will be in accordance with the Defense Transportation Regulation, Volume IV.
- 2004. <u>Wooden Overflow Boxes</u>. Overflow boxes will be constructed in accordance with ASTM-D-6251, Standard Specification for Wood-Cleated Panelboard Shipping Boxes, Style A or B, and will be caulked during assembly. Overflow boxes do not require an SDDC approval number
- 2005. Container Closure Sealing and Reinforcement. Containers that require a sealant/caulking material applied to the joints and door to ensure watertightness will be sealed/caulked prior to containerization of each shipment. Usage may cause the caulking to become dry, brittle, or dislocated from the container joints and seams. Recaulking, on an as needed basis, is required to maintain the watertightness of the container. Testing has determined that the most effective method to seal/waterproof a container is to caulk all seams with the exception of the horizontal floor seams. This should be done during the initial assembly process. When recaulking is necessary to ensure the watertightness of the container, recaulking on the inside of the container seams/joints is acceptable. Doors will be caulked on the inside joint before nailing or bolting and not on the outside container seams. Caulking material must be applied to all patched and repaired areas of the container. Closure of the container must be performed in accordance with the guidelines indicated in the container bill of materials contained herein or other commercially

accepted methods. It is recommended that containers be reinforced with steel banding to prevent pilferage. Banding should be steel strapping a minimum of 3/4 of an inch in width. Two bands should be placed vertically 1/3 inch from each container end and one band placed horizontally at the container center. These procedures are suggested for all containers used for DOD-sponsored cargo. Overflow boxes will be caulked during the assembly process and banded in accordance with the requirements outlined in ASTM-D-6251.

2006. <u>Stacking Containers</u>. Containers are tested in accordance with ASTM-D-4169, "Standard Practice for Performance Testing of Shipping Containers and Systems." Containers may be double or triple stacked depending on size, total gross weight and condition. Limiting factors would be size of the warehouse where containers are stacked and type of equipment available for stacking the containers.

2007. <u>Shipment Markings</u>. Individual shipment markings will be stenciled on two surfaces (one side and one end panel) of each container. Marking will be done in accordance with the requirements of the Defense Transportation Regulation, Volume IV, or other applicable specification as ordered by the PPSO.

2008. Carrier Container Marking. Carriers are encouraged to identify their containers by assigning a serialized number or other identification code to each approved container. It is recommended that this number be branded or stenciled on the container to assist in the overall identification of the shipment.

#### 2009. Variances in Construction Materials.

- a. Recent advancements in the manufacturing process of construction and industrial grades of plywood have resulted in the manufacture of slightly thinner panels. This new manufacturing technique has caused a slight decrease in the strength and tare weight characteristics of containers used in the transportation of personal property. These variances are considered minimal and if containers were to be retested, they generally would continue to pass the test requirements. However, these variances do present a difference in actual specifications and bill of materials originally approved. In some instances, upon inspection by quality control personnel, such containers have been rejected because of not meeting the specifications outlined in the pamphlet.
- b. To alleviate this problem and provide a system or method for inspectors to have an easily accessible identifier for containers manufactured with the new thinner and lighter panels, a code has been devised to identify these containers from originally approved containers. All containers constructed with the new thinner material will be branded with an "XI" after the SDDC approval number (example: SDDC000(X)), as identified in Paragraph 2003.
- 2010. <u>Fiberboard Containers</u>. Carriers may use corrugated fiberboard containers for the containerization of overflow and oversize articles or to containerize small personal property shipments. When fiberboard containers are used they must, as a minimum, meet the requirements of Specification ASTM-D-5168, Standard Practice for Fabrication and Closure of Triple Corrugated Fiberboard Containers. Fiberboard containers which exceed a gross of 15 cubic feet and 300 pounds must be secured to a four-way entry wooden pallet. Unless specifically approved by SDDC, ASTM-D-5168 fiberboard containers will not exceed 96 cubic feet.
  - a. After the container has been packed, it will be sealed by having all seams, corners, and joints taped with a minimum 2-inch wide waterproof tape. The tape applied to the

- manufacturers joint will cover the joint but not extend over the corners of the box onto the adjacent panels.
- b. After sealing, the container will be reinforced with steel or nonmetallic strapping. The banding will be tensioned sufficiently to effect adequate closure without damaging the fiberboard. The container will be banded both vertically and horizontally. One band will be placed vertically at each end of each side encircling the top, sides, and bottom. When the distance between the vertical bands is greater than 18 inches, additional band or bands will be required to provide support. One horizontal band is also required at the center point of the container encircling the sides and ends.
- c. Individual shipment markings will be stenciled on two surfaces (one side and one end panel) of each fiberboard container. Markings will be in accordance with the requirements of the Defense Transportation Regulation, Volume IV, or other applicable specifications as ordered by the PPSO. In addition, whenever the container's contents include fragile or delicate items, the container must be marked "THIS END UP" on both sides and ends. Each container will bear a boxmaker's certificate which certifies that the container meets the requirements of Specification ASTM-D-5168 or A-A-2876, Commercial Item Description, Boxes Shipping Corrugated Fiberboard, High Strength Weather Resistant, Double Wall. The boxmaker's certificate will contain name of manufacturer, bursting strength, minimum combined weight facings, size limit, gross weight, and information indicating type of carton (single wall, double wall, etc.). Certificate may be round or rectangular and is usually located on the bottom panel or bottom outer flap. In addition, all containers in excess of 15 cubic feet will be marked with the total cubic feet based on the outside dimensions. These markings will be placed in a corner of one panel or other appropriate area which will ensure visibility when the box is fully assembled.
- 2011. <u>SDDC-Approved Fiberboard Containers</u>. Three companies (Schumacher Wellpappi, Ansbach, West Germany; Beghim-Say, Kayserberg, France; Service Packaging Company, Honolulu, Hawaii) have received SDDC approval for fiberboard containers which exceed 96 cubic feet. The containers must reflect name of manufacturer, cube, and the words "SDDC approved." Also, The Servants, Inc. has received approval for container #229, which is a fiberboard container.

#### **SECTION III**

# **SELECTED REFERENCES**

3000. <u>Publications</u>. The following publications are applicable and provide additional information on the container program:

- a. DOD Publications.
  - (1) Defense Transportation Regulation, Volume IV
- b. Performance Specifications.
  - (1) ASTM-D-4169 Standard Practice for Performance Testing of Shipping Containers and Systems
  - (2) ASTM-D-6251 Standard Specification for Wood-Cleated Panelboard Shipping Boxes
  - (3) ASTM-D-5168 Standard Practice for Fabrication and Closure of Triple Corrugated Fiberboard Containers
  - (4) ASTM-D5118 Standard Practice for Fabrication of Fiberboard Shipping Boxes

#### SECTION IV

#### CONTAINER INSPECTIONS

- 4000. <u>Container Inspection Report</u>. SD Form 356-R, Container Inspection Report, shown on page 12, may be used in reporting substandard carrier containers. Local reproduction of this form by PPSOs and transit terminals is authorized. It is suggested that the completed form be distributed to the origin and destination PPSOs, as appropriate, and the carrier.
- 4001. <u>Inspection Checklist</u>. During the inspection process, the inspecting official should review and check the areas listed below:
  - a. Holes. The container should be free of all holes and similar defects.
- b. Patched Areas. Patches will not exceed 30 percent of the total area of the container. All patches should fit snugly and securely. Each patch must be properly caulked.
- c. Caulking. All new containers should be caulked during the assembly process. Recaulking on an as needed basis is acceptable. All joints and seams, with the exception of the horizontal floor seam, must be caulked.
- d. Rubbing Strips (SKIDS). All rubbing strips or SKIDS should be securely attached to maintain the container in a stable upright position when loaded.
- e. Door. The door should fit snugly without any openings or areas which would expose the containers interior or contents.
- f. Side and End Panels. Plywood panels should normally not show evidence of ply separation that would significantly affect the containers' structural integrity. Plywood panels should not have frayed edges where nails have to be driven to hold them in place against the top, bottom, ends and sides. Frayed edges can be covered by a proper brace. There should be no rotten side or end panels and there should be no extreme warping present.
- g. Markings. All markings which pertain to previous shipments, with the exception of carrier container identification marks, must be completely obliterated. If the container is being inspected while in use, marking should conform to the Defense Transportation Regulation, Volume IV.
- h. Roof. Plywood should be intact with no separation of the plys and no excessive warping. The top should fit snugly against all sides and ends and should not sag excessively.
- i. Braces. The braces on all edges (top and bottom of all sides and ends) should be intact with no broken, split or gouged areas. All braces should be caulked.
- j. Bottom. The plywood on the bottom should be snugly fitted to the side and end panels. There should be no excessive sagging and the plywood should not be rotten or have separation of the plys.
- k. Bands. Bands should be made of a steel material a minimum of 3/4 inches wide and placed according to SDDC PAM 55-12, Section II, Paragraph 2005.

4002. <u>Serviceable/Unserviceable Container</u>. A serviceable container is one that is in sound condition and free from visible defects. If repairs/patches, other than minor ones, are necessary, they will not exceed 30 percent of the total area of the container or cost of repairs will not exceed 50 percent of the container replacement cost (estimated cost of a new container is \$150-\$160). An unserviceable container is one which does not meet the above criteria.

| CONTAINER INSPECTION REPORT SDDC Pamphlet 55-12   |  |                                     |                 |              |  |
|---|--|-------------------------------------|-----------------|--------------|--|
| 1. DATE (Mo/Day/Yr)   | 2. GBL                                 |                                     | 3. TCN          |              |  |
| 4. ORIGIN PPSO  | 5. GBLOC                               | 6. DESTINATION PPSO                 | 1               | 7. GBLOC     |  |
| 8. NAME OF PROPERTY OWNER (Last, First, MI)   |  | 9. RANK 10. SOCIAL SECURITY NUMBER  |                 | URITY NUMBER |  |
| 11. NAME OF CARRIER   | 12. SCAC                               | 13. CODE OF SERVICE                 | 14. RDD         |              |  |
| 15. INSPECTION SITE (Check appropriate box)   |  |                                     |                 |              |  |
| FACILITY RESI   | DENCE DISCREPAN                        | TRANSIT TERMINAL                    | WAREH           | OUSE         |  |
| 16. CARRIER CONTAINER NO  | DISCREPANCY DATA  17. SDDC APPROVAL NO |                                     | 18. DISCREPANCY |              |  |
|   |  |                                     |                 |              |  |
|   |  |                                     |                 |              |  |
|   |  |                                     |                 |              |  |
|   |  |                                     |                 |              |  |
| OO DECORD WHE LOCATION OF ANY ORGEDVE   | D DEFICIENCIES ON A                    | NULL DICLIDE DEL OW                 |                 |              |  |
| 20. RECORD THE LOCATION OF ANY OBSERVE  CR = CRACKED RT = ROTTON HL = HOLE WP = WARPED MS = MISSING SP = SPLITING SG = SAGGING FR = FRAYED NK = NOT CAULKED | $\sim$                                 | BRACES FOUND ON MANY HHG CONTAINERS | 23. DISTRIBUTI  | ON           |  |
|   |  |                                     |                 |              |  |

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